

EXECUTIVE OFFICER SUMMARY REPORT
August 14, 2013

- ITEM: 8.a
- SUBJECT: NPDES Permit Reissuance: United States Department of the Navy, Naval Base San Diego Complex, San Diego County (Tentative Order No. R9-2013-0064, NPDES No. CA0109169) (*Ben Neill*)
- PURPOSE: To receive public testimony and consider adoption of Tentative Order No. R9-2013-0064 (Tentative Order).
- RECOMMENDATION: Adoption of Tentative Order No. R9-2013-0064 with errata is recommended.
- KEY ISSUES:*
1. The Tentative Order is a comprehensive and complex NPDES permit regulating all discharges from the United States Department of the Navy (US Navy), Naval Base San Diego Complex, which is comprised of four installations. The San Diego Naval Base Complex has a combined total of 353 discharge points for the following categories of discharges: industrial process wastewater, industrial storm water and municipal storm water.
 2. The Tentative Order establishes end-of-pipe chronic toxicity effluent limitations for industrial process wastewater discharges and acute toxicity effluent limitations for "high risk" industrial storm water discharges. The Tentative Order requires use of the United States Environmental Protection Agency (USEPA) Test of Significant Toxicity (TST) approach to determine if a discharge is toxic. The Errata to the Tentative Order also requires chronic toxicity monitoring of high risk industrial storm water discharges with numerical thresholds for performing a toxicity reduction evaluation and toxicity identification evaluation as requested by USEPA.
 3. Section VI.C.2 of the Tentative Order contains a provision for the US Navy to develop a work plan for a detailed study regarding the future application of chronic toxicity effluent limitations with mixing zones and dilution credits applicable to industrial storm water discharges to San

Diego Bay.

DISCUSSION:

Overview of the Tentative Order

The United States Navy owns and operates three separate military bases located on the San Diego Bay water front: 1) Naval Base San Diego, 2) Naval Base Point Loma and 3) Naval Base Coronado. Discharges from each of these military bases are regulated under separate NPDES Permits. The Tentative Order proposes to regulate all discharges from one of these bases, Naval Base San Diego.

Naval Base San Diego is the principal home port of the Pacific Fleet consisting of fifty-four ships and over 180 tenant commands each having specific and specialized fleet support purposes. The base is composed of 13 piers stretched over 977 acres of land and 326 acres of water. The total on base population is approximately 20,000 military personnel and 6,000 civilians. Naval Base San Diego is comprised of four separate installations: 1) the main Naval Base San Diego located along the eastern shore of San Diego Bay, south of the Coronado Bridge; 2) the Navy Region Southwest headquarters located in the Broadway Complex office building in downtown City of San Diego; 3) the Mission Gorge Recreational Facility (also known as Admiral Baker Field) located along the San Diego River, east of Interstate 15; and 4) the Naval Medical Center San Diego located in Balboa Park. All of these facilities are jointly referred to as Naval Base San Diego. **(See Supporting Document No. 1 for facility location map)**

The Tentative Order **(Supporting Document No. 2)** is a comprehensive NPDES permit that proposes to consolidate regulation of all discharges to surface waters from several hundred discharge points at Naval Base San Diego including 1) industrial process wastewater; 2) industrial storm water and 3) municipal storm water. The Tentative Order also proposes to consolidate regulation of discharges from the Naval Graving Dock, which is located within Naval Base San Diego and is currently regulated under a separate NPDES Permit. The Tentative Order proposes to supersede both Naval Base San Diego's existing NPDES Order No. R9-2002-0169 and the Naval Graving Dock's existing NPDES Order No. R9-2003-0365, which are expired but remain in effect under an administrative extension. If adopted the Tentative Order will remain in effect for a five-year fixed term.

The Tentative Order includes a detailed Fact Sheet in Attachment F pursuant to federal NPDES permit regulations that sets forth the principal background information, facts, regulatory and legal citations, data, and references relied upon in developing the Tentative Order. The Tentative Order implements the NPDES permitting requirements of the federal Clean Water Act and the California Water Code. The Tentative Order also updates the waste discharge requirements to be consistent with USEPA's Test of Significant Toxicity Implementation Document, the State Water Board's Phase II Small Municipal Separate Storm Sewer System (MS4) Permit, the State Water Board's *Water Quality Control Plan for Enclosed Bays and Estuaries* (Sediment Quality Plan), and the San Diego Water Board's *Water Quality Control Plan for the San Diego Basin* (Basin Plan). The requirements of the Tentative Order incorporate many significant additions and revisions to the existing requirements in the current NPDES Order. The significant additions and revisions are described further below under "Significant Changes."

Public Review and Comment on Tentative Order

The Tentative Order was noticed and released for formal public review and comment on June 7, 2013. The written comment period ended July 8, 2013. The timely submitted written comments are included as **Supporting Documents Nos. 3 and 4**. The San Diego Water Board has provided written responses to these comments (**Supporting Document No. 5**). Additionally, the Tentative Order has been revised in response to these comments. The revisions are in redline/strikeout text in the Errata Sheet (**Supporting Document No. 6**).

The San Diego Water Board received two comment letters on the Tentative Order from the US Navy and USEPA. A summary of the substantive comments received is provided below.

U.S. Department of the Navy Comments

By letter dated July 8, 2013 (**Supporting Document No. 3**), the US Navy submitted comments on the Tentative Order. In general, the US Navy requested non-substantive clarifications and corrections to the Tentative Order's requirements. For the most part, the San Diego Water Board staff agreed with the various US Navy's requests to revise the Tentative Order. (**See Errata Sheet, Supporting Document No. 6**)

The US Navy requested that small municipal separate storm water (MS4) monitoring under the Tentative Order be consistent with the monitoring required by the State Water Board's General Permit for the Discharge of Storm Water from Small MS4s (Order No. 2013-0001-DWQ). The statewide Small MS4 General Permit is designed to provide permit coverage for smaller municipalities (population less than 100,000), including non-traditional Small MS4s, which are facilities such as military bases, public campuses, prison and hospital complexes. The Tentative Order provides for regulation of small MS4 discharges at Naval Base San Diego, which eliminates the need for the US Navy to apply for coverage under the statewide Small MS4 General Permit.

The statewide Small MS4 General Permit does not explicitly require dischargers to conduct MS4 monitoring. MS4 monitoring, however, is an important and integral tool needed to successfully assess, revise, and implement an effective program to reduce pollutants in storm water discharges to the maximum extent practicable. MS4 monitoring can also be used to help identify illicit discharges and cross connections for elimination of dry weather flows. The US Navy is only beginning to develop their small MS4 program at Naval Base San Diego and the Tentative Order includes appropriate requirements for a basic MS4 monitoring program to support development of the program. Nevertheless, San Diego Water Board staff recognizes that the Tentative Order also directs the US Navy to comply with newly added monitoring requirements for industrial storm water discharges, industrial process wastewater discharges, total maximum daily load (TMDL) wasteload allocations and toxicity. In addition, as explained further below, the toxicity monitoring for industrial storm water discharges is being increased at USEPA's request. Therefore in the interest of balancing resource management and considering the US Navy has to develop this new monitoring program, the timeframe for development and submittal of a MS4 monitoring plan has been extended to 24 months following the effective date of the Order. In addition, the number of representative small MS4 monitoring locations will be reduced from five locations to three locations as described in Item No. 33 of the Errata Sheet.

US Environmental Protection Agency Comments

By letter dated July 8, 2013 (**Supporting Document No. 4**), the USEPA requested that chronic toxicity monitoring be required for "high risk" industrial storm water discharges in

order to inform reasonable potential determinations in future NPDES Permit reissuances for Naval Base San Diego. “Reasonable potential” refers to the analysis that is performed to determine what pollutants require water quality-based effluent limitations. The term “high risk” in the Tentative Order refers to areas where wastes or pollutants of significant quantities are subject to precipitation, run-on and/or runoff and therefore present a threat to water quality. San Diego Water Board staff concurred with this request and has modified the Tentative Order to require twice annual chronic toxicity monitoring at representative “high risk” industrial storm water discharge locations. The Tentative Order has also been modified to include numeric thresholds which trigger a “Toxicity Reduction Evaluation” under certain circumstances. **(See Errata Item No. 24 in Supporting Document No. 6)** Toxicity Reduction Evaluation refers to a site-specific study conducted in a stepwise process that is designed to mitigate toxicity. The Tentative Order also requires the chronic toxicity monitoring results to be used in the US Navy’s proposed detailed study regarding the future application of chronic toxicity effluent limitations with mixing zones and dilution credits applicable to industrial storm water discharges to San Diego Bay. **(See Errata Item No. 24 and section VI.C.2.a of the Tentative Order)**

USEPA also requested that the Tentative Order be revised to either incorporate monitoring to ensure that incidental runoff from landscaped areas does not have an adverse effect on water quality, or to prohibit incidental runoff from landscape irrigation. The San Diego Water Board staff concurred with the USEPA’s request and deleted the exemption for incidental runoff from section IV.G.1.m of the Tentative Order. The removal of the exemption prohibits the discharge of incidental runoff from landscape irrigation.

**SIGNIFICANT
CHANGES:**

The Tentative Order contains the following significant changes from the current Naval Base San Diego NPDES Orders:

1. The Tentative Order consolidates regulation of the Naval Graving Dock discharges and Naval Base San Diego discharges, under one permit instead of two separate individual NPDES Permits and eliminates the need for the US Navy to apply for coverage under a third permit, the statewide Small MS4 General Permit. (See Finding II.A.2 of the Tentative Order)

2. The current NPDES Order for Naval Base San Diego regulates a salt water system that was used to provide firefighting and cooling water. This system produced discharges at Pier 13 and the Mole Pier as a point source discharge. The Discharger has installed a separate salt water system pumping station at the USN Graving Dock which enabled it to deactivate the pumps that produced discharges at Pier 13 and the Mole Pier. Accordingly the Tentative Order proposes to no longer regulate the salt water system discharges at Pier 13 and the Mole Pier because these discharges have been eliminated. The salt water system discharges from the new pumping station at the USN Graving Dock are regulated by the Tentative Order.
3. The acute toxicity effluent limitations for industrial storm water discharges specified in the current NPDES Order for Naval Base Sam Diego have been updated in the Tentative Order. The Tentative Order establishes acute toxicity effluent limitations for high risk industrial storm water discharges based on the USEPA Test of Significant Toxicity (TST) approach. The TST is a statistical approach used to analyze toxicity test data. In 2010, USEPA promulgated the new TST approach to evaluate toxicity test results to determine if a sample exhibits toxicity or not. The State Water Board is in the process of developing a new statewide toxicity water quality control plan to implement this TST approach in analyzing toxicity data on a statewide basis. (See sections IV.C and VII.H of the Tentative Order)
4. The Tentative Order establishes chronic toxicity effluent limitations on all industrial process wastewater discharges based on the USEPA Test of Significant Toxicity (TST) approach. The current NPDES Order, for Naval Base San Diego does not include chronic toxicity effluent limitations for these discharges. (See Section IV A of the Tentative Order)
5. The current NPDES Order regulates all industrial storm water discharges at Naval Base San Diego equally without regard to the water quality threat posed by the discharge. The Tentative Order proposes to segregate regulation of industrial storm water discharges by high risk, low risk, and no exposure areas. This tiered regulatory approach of the Tentative Order provides for more effective regulation of

discharges from Naval Base San Diego that present the greatest threat to water quality. (See section IV.B of the Tentative Order).

6. The Tentative Order establishes technology based numeric effluent limitations derived from the State Water Board's Ocean Plan Table A for oil and grease, suspended solids, settleable solids, turbidity and pH for industrial process wastewater discharges from steam condensate, graving dock deflooding water and salt water rinse water, caisson ballast dewatering, fire suppression water and salt water supply water. The current NPDES Order for Naval Base San Diego does not include these effluent limitations. (See section IV.A of the Tentative Order)
7. Based on a reasonable potential analysis, the Tentative Order establishes water quality based numeric effluent limitations for copper, lead, mercury, zinc, copper, cadmium, nickel, silver and pH applicable to industrial process wastewater discharges from steam condensate, graving dock deflooding water and salt water rinse water, caisson ballast dewatering, fire suppression water and salt water supply water. The current NPDES Order does not include these effluent limitations. The Tentative Order also includes a newly derived intake water credit for copper applied to discharges from the graving dock deflooding water, caisson ballast water, and fire suppression water and salt water supply water. (See section IV.A of the Tentative Order)
8. The Tentative Order establishes requirements for small municipal separate storm sewer system (MS4) storm water discharges that are generally consistent with the statewide Small MS4 General Permit requirements. The current NPDES Order, R9-2002-0169, for Naval Base San Diego does not regulate small MS4 storm water discharges. (See section IV.D of the Tentative Order)
9. The Tentative Order implements the Chollas Creek Metals TMDL requirements which include waste load allocations for copper, lead, and zinc in storm water discharges to Chollas Creek. The Tentative Order establishes Storm Water Action Levels with average monthly and maximum daily levels applicable to the concentration of metals in storm water discharges to Chollas Creek. (See section IV.E of the Tentative Order)

**COMPLIANCE
RECORD:**

During the term of the current NPDES Order, the US Navy had numerous exceedances of the acute toxicity effluent limitation for industrial storm water discharges. For example on November 4, 2008, 26 out of 41 industrial storm water samples did not meet the acute toxicity effluent limitations. On December 7, 2009, four out of twenty-one samples collected from industrial storm water outfalls during a storm event did not meet the acute toxicity effluent limitation. This acute toxicity compliance issue has been addressed in the Tentative Order by modifying the acute toxicity effluent limitation to be expressed as the outcome of the TST approach and the resulting percent effect equal to or greater than 50 percent. The TST approach is a statistically robust test that lessens the potential of a false positive (toxic) or false negative (non-toxic) test result. USEPA TST guidance documents indicate that this approach provides a clear threshold for declaring an unacceptable level of toxicity in a given sample. The US Navy anticipates that the high risk industrial storm water discharges will be in compliance with the revised acute toxicity effluent limitation.

A variety of small spills and minor BMP violations were also noted in reports and inspections conducted during the term of the current NPDES Order. A summary of the compliance record is provided in Attachment F, Page F-33 of the Tentative Order.

LEGAL CONCERNS: None

**SUPPORTING
DOCUMENTS:**

1. Location Maps
2. Tentative Order No. R9-2013-0064, version released on June 7, 2013
3. US Navy Comment letter dated July 5, 2013
4. USEPA Comment letter dated July 8, 2013
5. San Diego Water Board Response to Comments
6. Errata Sheet to Tentative Order No. R9-2013-0064 and Tentative TSO No. R9-2013-0095

PUBLIC NOTICE:

On June 7, 2013, the Tentative Order was e-mailed to the US Navy and to all known interested persons and posted on the San Diego Water Board's website. On June 7, 2013, a public notice was published in the San Diego Union Tribune and the Orange County Register. Notice was also provided in the Meeting Notice and Agenda for the August 14, 2013 Board

meeting, which is posted on the San Diego Water Board's website.